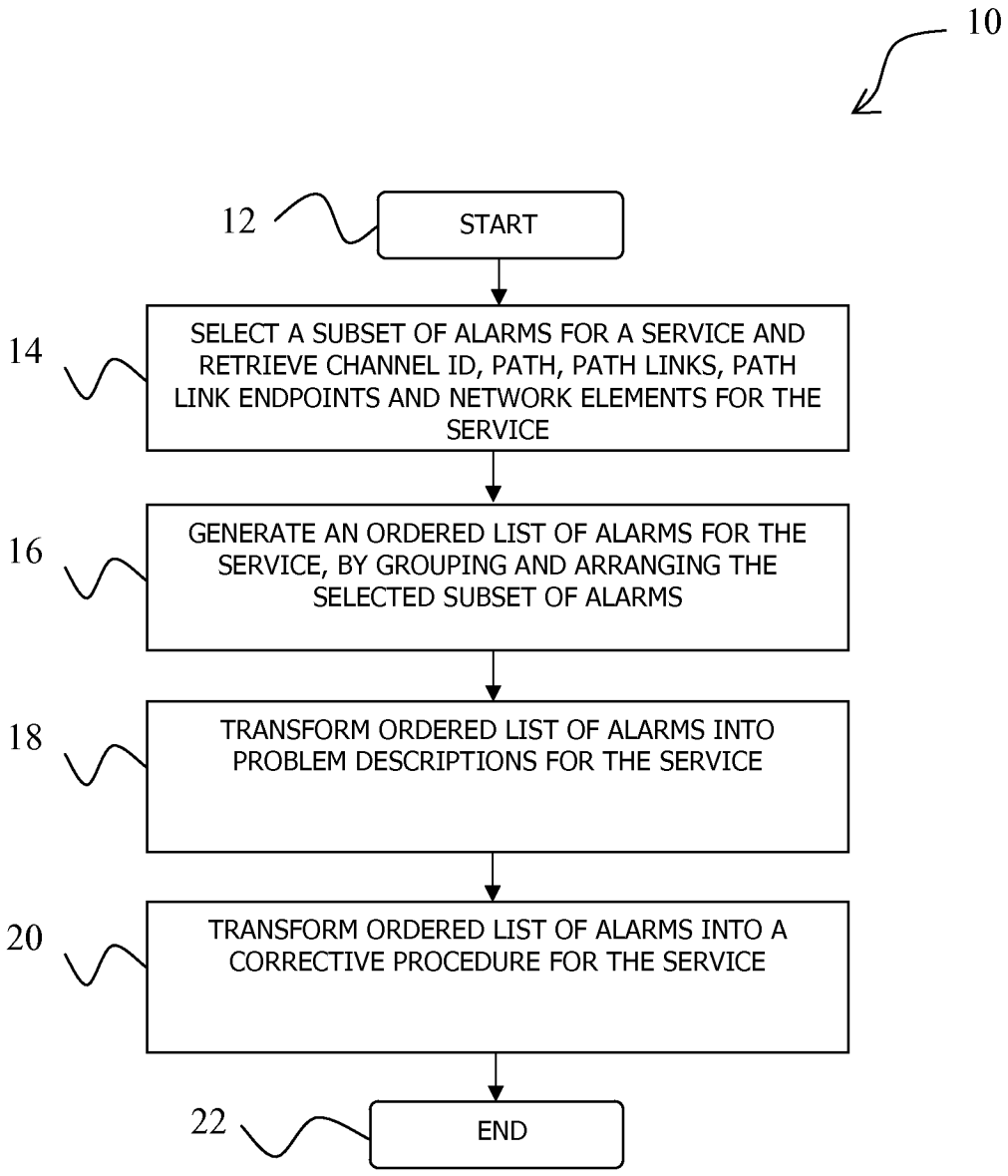

10
12
START
14
SELECT A SUBSET OF ALARMS FOR A SERVICE AND RETRIEVE CHANNEL ID, PATH, PATH LINKS, PATH LINK ENDPOINTS AND NETWORK ELEMENTS FOR THE SERVICE
16
GENERATE AN ORDERED LIST OF ALARMS FOR THE SERVICE, BY GROUPING AND ARRANGING THE SELECTED SUBSET OF ALARMS
18
TRANSFORM ORDERED LIST OF ALARMS INTO PROBLEM DESCRIPTIONS FOR THE SERVICE
20
TRANSFORM ORDERED LIST OF ALARMS INTO A CORRECTIVE PROCEDURE FOR THE SERVICE
22
END

Fig. 1

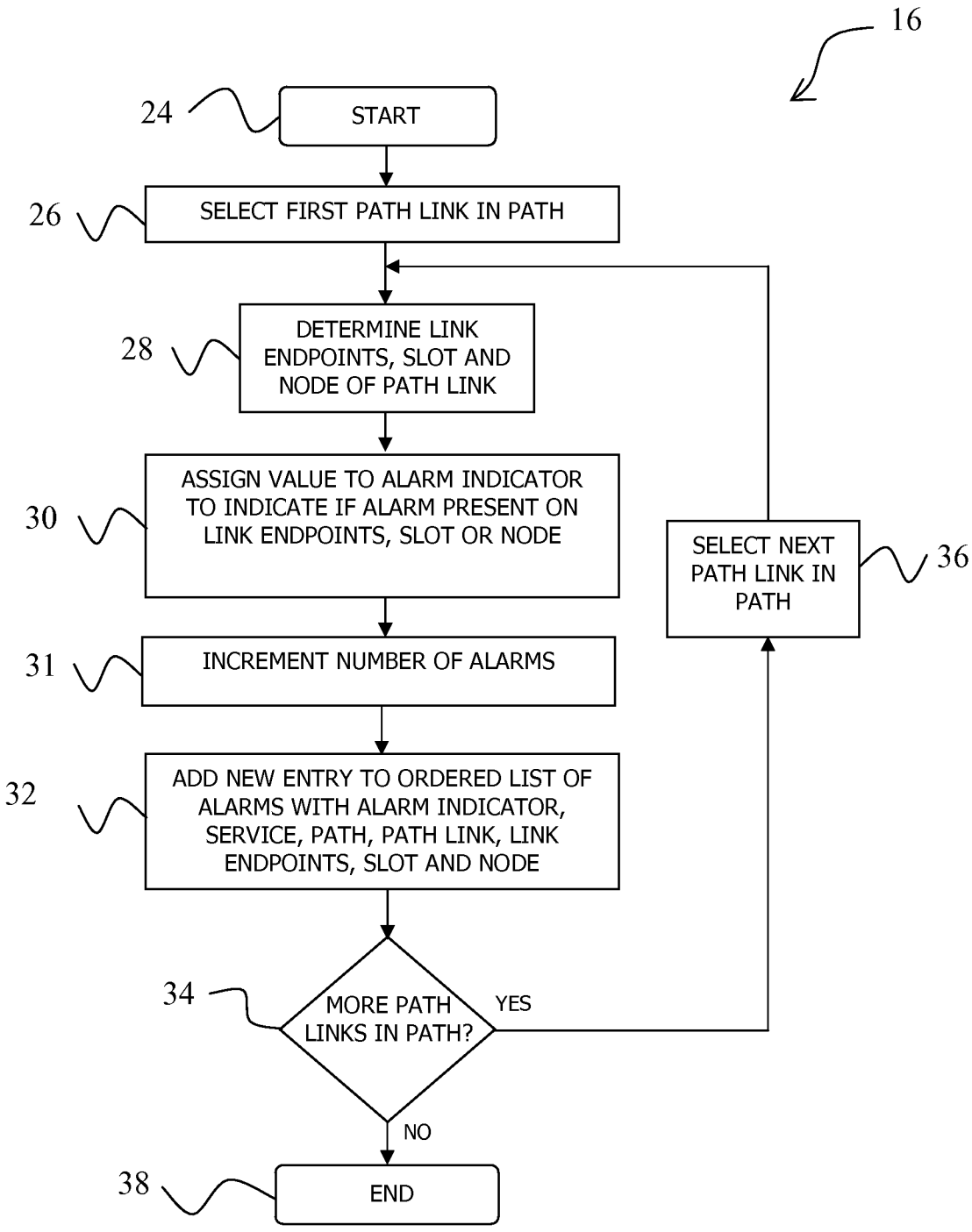

16
24
START
26
SELECT FIRST PATH LINK IN PATH
28
DETERMINE LINK ENDPOINTS, SLOT AND NODE OF PATH LINK
30
ASSIGN VALUE TO ALARM INDICATOR TO INDICATE IF ALARM PRESENT ON LINK ENDPOINTS, SLOT OR NODE
31
INCREMENT NUMBER OF ALARMS
32
ADD NEW ENTRY TO ORDERED LIST OF ALARMS WITH ALARM INDICATOR, SERVICE, PATH, PATH LINK, LINK ENDPOINTS, SLOT AND NODE
34
MORE PATH LINKS IN PATH?
YES
NO
36
SELECT NEXT PATH LINK IN PATH
38
END

Fig. 2

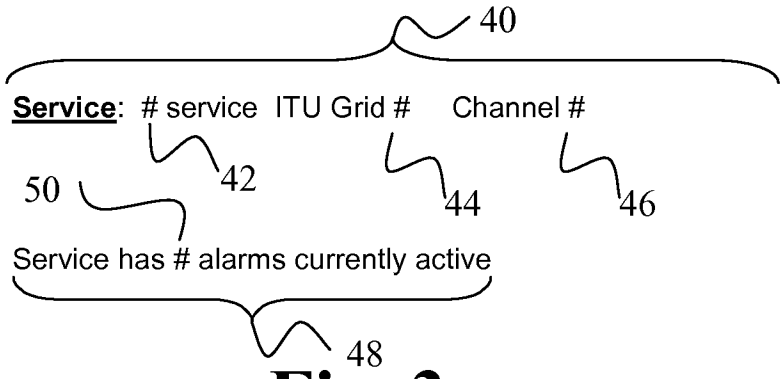


Fig. 3a

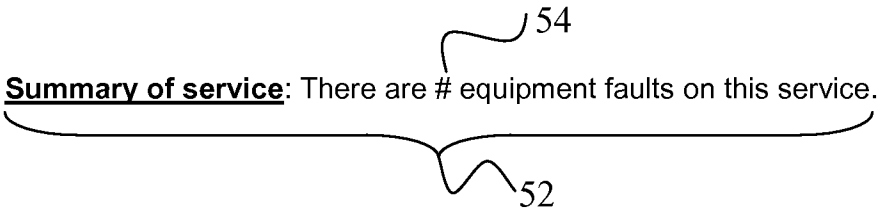


Fig. 3b

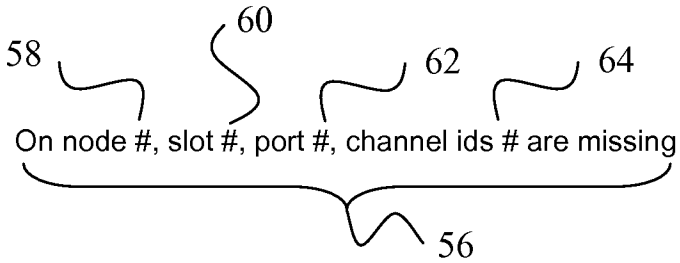


Fig. 3c

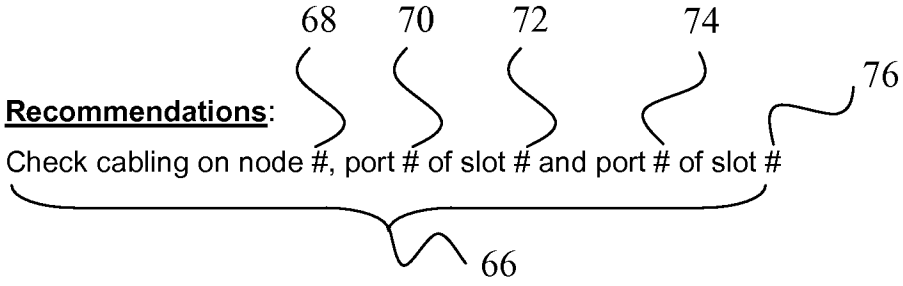


Fig. 3d

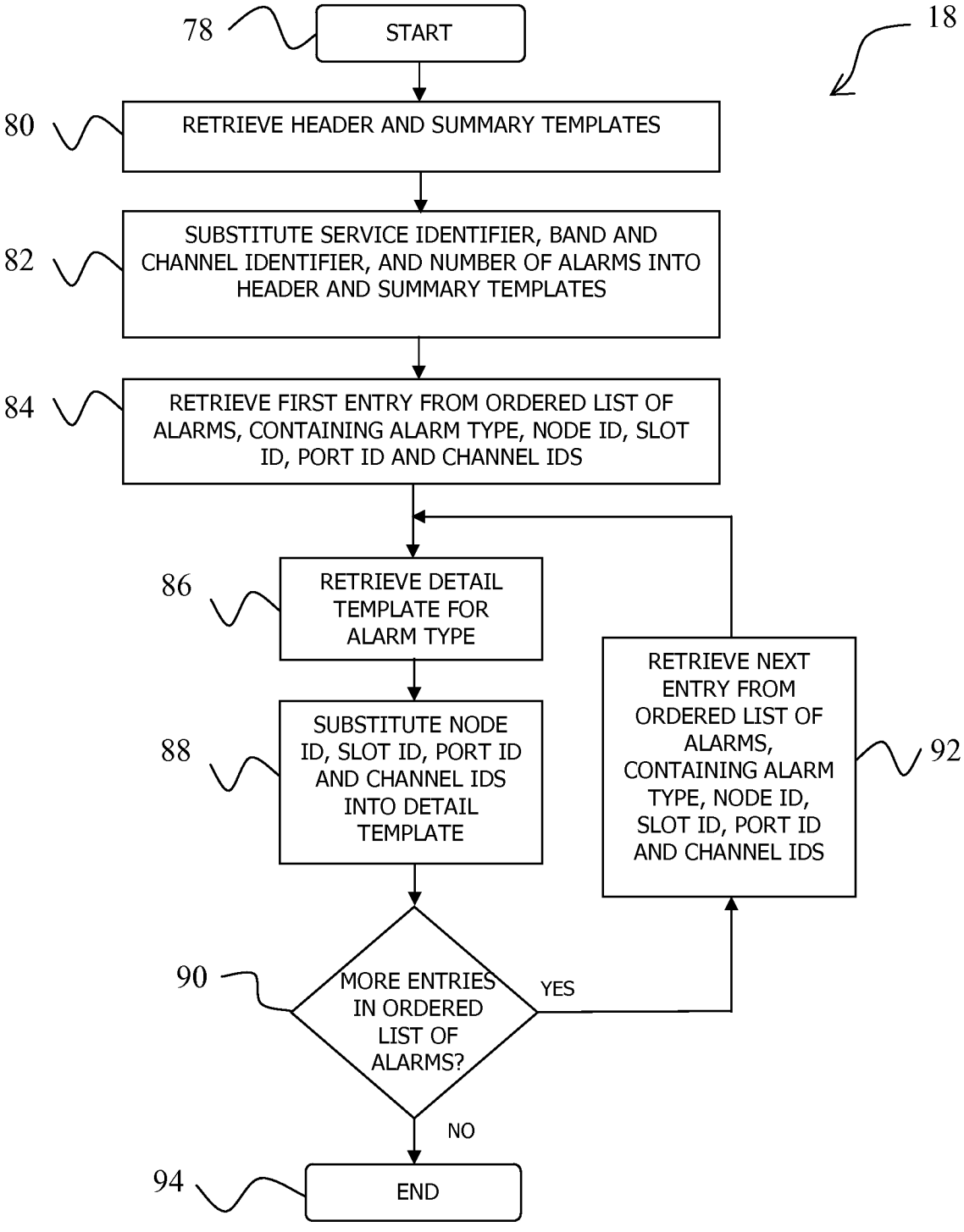

78
START
18
80
RETRIEVE HEADER AND SUMMARY TEMPLATES
82
SUBSTITUTE SERVICE IDENTIFIER, BAND AND CHANNEL IDENTIFIER, AND NUMBER OF ALARMS INTO HEADER AND SUMMARY TEMPLATES
84
RETRIEVE FIRST ENTRY FROM ORDERED LIST OF ALARMS, CONTAINING ALARM TYPE, NODE ID, SLOT ID, PORT ID AND CHANNEL IDS
86
RETRIEVE DETAIL TEMPLATE FOR ALARM TYPE
88
SUBSTITUTE NODE ID, SLOT ID, PORT ID AND CHANNEL IDS INTO DETAIL TEMPLATE
90
MORE ENTRIES IN ORDERED LIST OF ALARMS?
YES
NO
92
RETRIEVE NEXT ENTRY FROM ORDERED LIST OF ALARMS, CONTAINING ALARM TYPE, NODE ID, SLOT ID, PORT ID AND CHANNEL IDS
94
END

Fig. 4

5/9

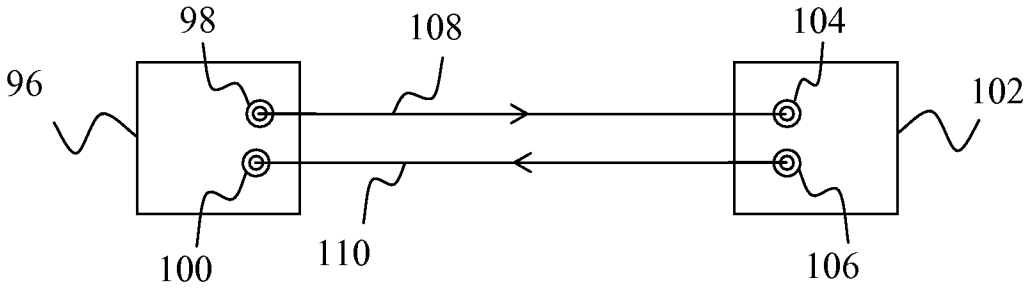


Fig. 5a

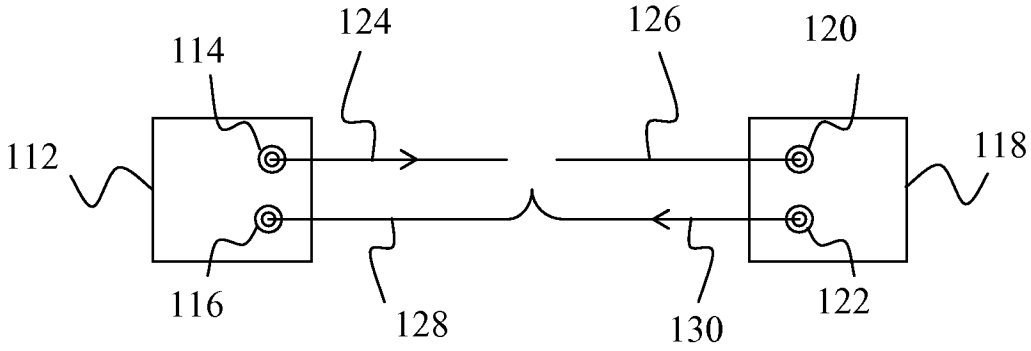
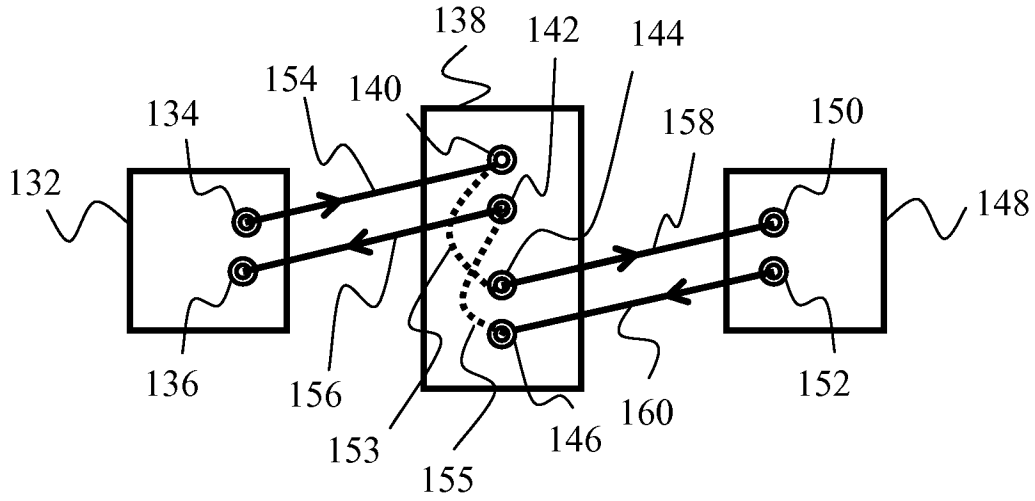


Fig. 5b


138
142
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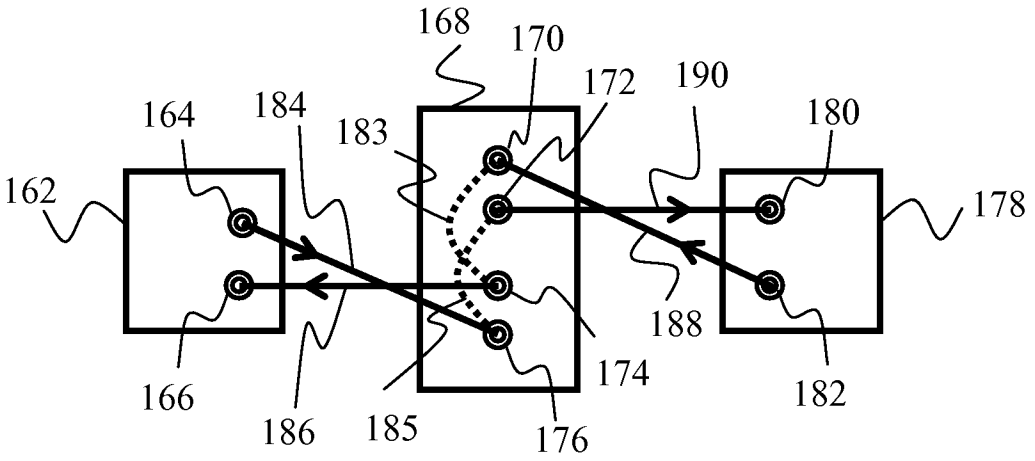
152

Fig. 6a


168
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182

Fig. 6b

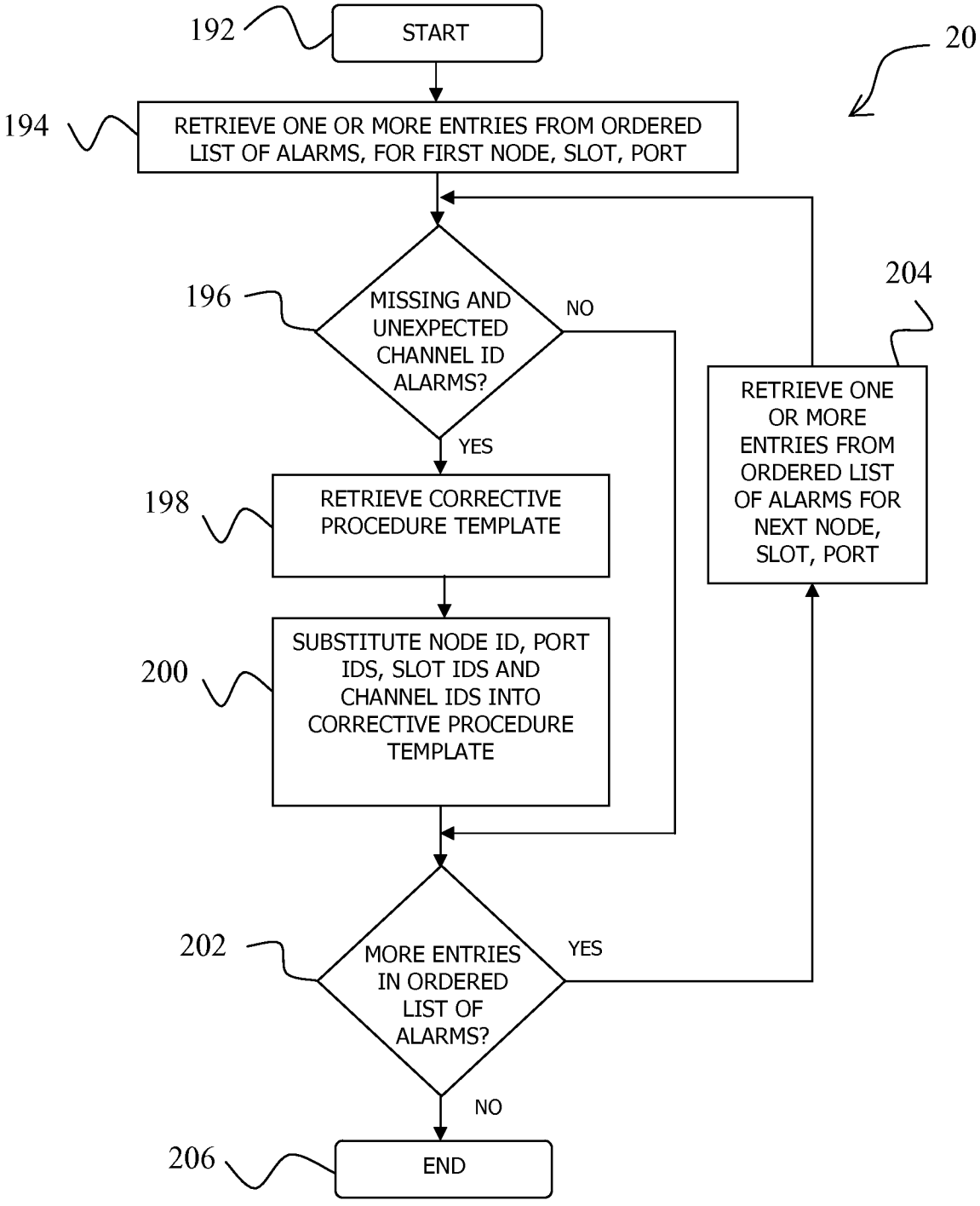
192
START
20
194
RETRIEVE ONE OR MORE ENTRIES FROM ORDERED LIST OF ALARMS, FOR FIRST NODE, SLOT, PORT
196
MISSING AND UNEXPECTED CHANNEL ID ALARMS?
NO
YES
204
RETRIEVE ONE OR MORE ENTRIES FROM ORDERED LIST OF ALARMS FOR NEXT NODE, SLOT, PORT
198
RETRIEVE CORRECTIVE PROCEDURE TEMPLATE
200
SUBSTITUTE NODE ID, PORT IDS, SLOT IDS AND CHANNEL IDS INTO CORRECTIVE PROCEDURE TEMPLATE
202
MORE ENTRIES IN ORDERED LIST OF ALARMS?
YES
NO
206
END

Fig. 7

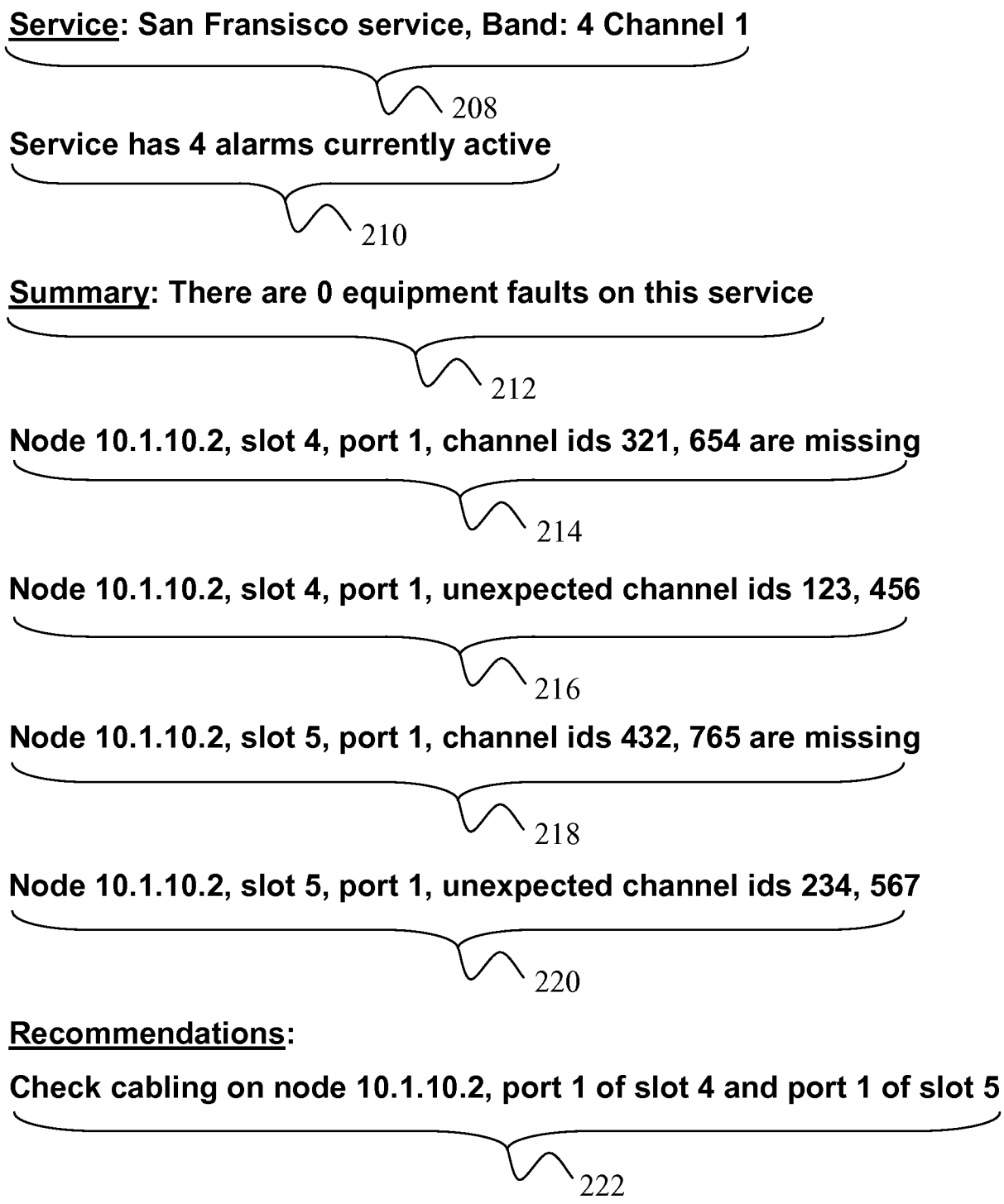
Service: San Fransisco service, Band: 4 Channel 1
208
Service has 4 alarms currently active
210
Summary: There are 0 equipment faults on this service
212
Node 10.1.10.2, slot 4, port 1, channel ids 321, 654 are missing
214
Node 10.1.10.2, slot 4, port 1, unexpected channel ids 123, 456
216
Node 10.1.10.2, slot 5, port 1, channel ids 432, 765 are missing
218
Node 10.1.10.2, slot 5, port 1, unexpected channel ids 234, 567
220
Recommendations:
Check cabling on node 10.1.10.2, port 1 of slot 4 and port 1 of slot 5
222

Fig. 8

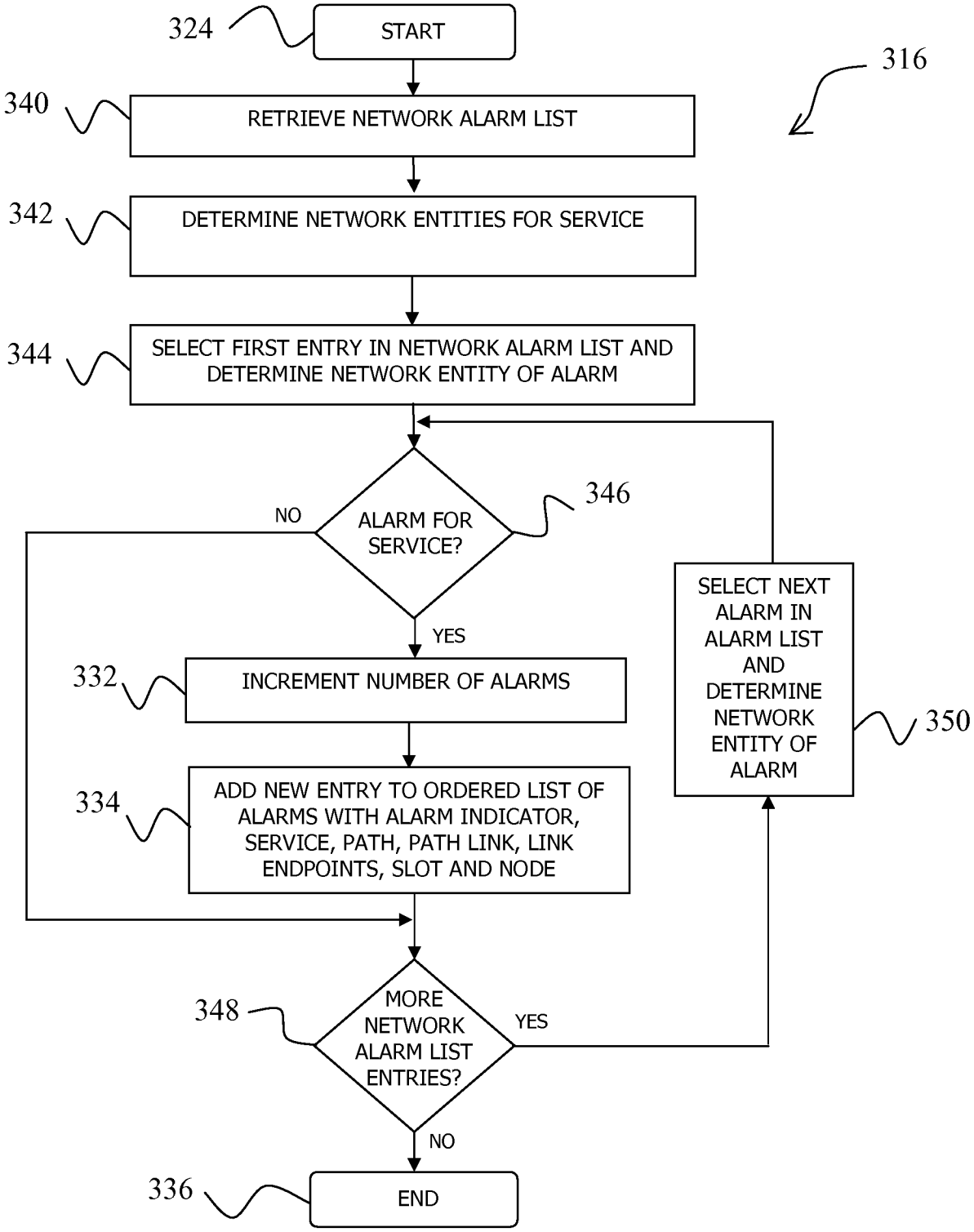
324
START
316
340
RETRIEVE NETWORK ALARM LIST
342
DETERMINE NETWORK ENTITIES FOR SERVICE
344
SELECT FIRST ENTRY IN NETWORK ALARM LIST AND DETERMINE NETWORK ENTITY OF ALARM
346
ALARM FOR SERVICE?
NO
YES
332
INCREMENT NUMBER OF ALARMS
334
ADD NEW ENTRY TO ORDERED LIST OF ALARMS WITH ALARM INDICATOR, SERVICE, PATH, PATH LINK, LINK ENDPOINTS, SLOT AND NODE
SELECT NEXT ALARM IN ALARM LIST AND DETERMINE NETWORK ENTITY OF ALARM
350
348
MORE NETWORK ALARM LIST ENTRIES?
YES
NO
336
END

Fig. 9